



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/121,528 07/23/98 DERDERIAN

G M4065.069/P0

IM62/0201

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EXAMINER

WEEKS, T

ART UNIT

PAPER NUMBER

1762

DATE MAILED:

02/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action

Application N .

09/121,528

Examiner

Timothy H. Meeks

Applicant(s)

DERDERIAN, GARO J.

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 18 January 2001 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check only a) or b)]

- a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.
- b) ☐ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 706.07 (f)), the period for reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees.
3. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search. (see NOTE below);
 - (b) ☐ they raise the issue of new matter. (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

4. ☐ Applicant's reply has overcome the following rejection(s): _____
5. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
6. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
7. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
8. ☒ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):
- Claim(s) allowed: _____
- Claim(s) objected to: _____
- Claim(s) rejected: 1-4, 6-10, 12-36, and 46-68
- Claim(s) withdrawn from consideration: _____
9. ☐ The proposed drawing correction filed on _____ a) ☐ has b) ☐ has not been approved by the Examiner.
10. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
11. ☐ Other: _____

Timothy H. Meeks
Primary Examiner
Art Unit: 1762

Continuation of 6. does NOT place the application in condition for allowance because: Applicants argue that Baum is silent as to operating conditions because they are concerned with eliminating deleterious effects of having hydrogen in contact with capacitor oxides at high temperatures which they achieve by adding nitrogen oxide to oxygen. Although this is one advantage taught by Baum for using nitrous oxide/oxygen mixture, they also teach that such addition eliminates carbon from the film, thus improving resistivity as well as the other advantages described at col. 5, lines 15-50. Applicants argue that Baum does not teach the deposition temperature limitation. Please see the use of 200-300 C deposition temperature in Example 6 of Baum. Applicants argue that determining the total flow rate of oxidizing gases is not a matter of routine experimentation due to diluting effects and step coverage. However, this assumes using the auxiliary gas as a carrier. This is not how the oxidizing gas mixture of Baum is used. The argument set forth by applicants based on dilution assumes increasing oxidizing gas without increasing precursor flow. The claims place no limitation on the precursor flow or the ratio of oxidizing gas to precursor flow, which is the real indicator of dilution. The examiner maintains that use of the claimed flow rates of oxidizing gas would have been obvious as set forth previously as a matter of routine experimentation to optimize a result effective parameter. Applicants argue that they have shown unexpected benefits derived from using the total flow rates. No evidence of this purported unexpected benefit has been provided. Example 3 only shows a total flow rate of 1800 sccm at a certain flow rate of precursor but this in no way shows an unexpected result from using these flows as there is no comparison as to use of other flow rates. Applicants argue that Kwon does not disclose oxygen and nitrous oxide. However, this is recited in Baum. Use of the flow rate is obvious as set forth previously. Applicants argue that Kwon proves that "platinum film qualities are not a result of routine experimentation". This is not the basis for the rejection. The basis is that given the disclosure of Baum that the oxidizing gases are added to remove carbon impurities from the deposited films, the amount or flow rate of oxidizing gas provided during deposition clearly affects the carbon removal. Therefore this parameter (oxidizing gas flow rate or amount) is a result effective parameter and adjusting this parameter with known consequences through routine experimentation for optimization is obvious. Applicants argue that the "Office Action unfairly continues to assert" that deposition times and thickness of the film deposited are related or cause effective parameters. This is not an unfair assertion but rather a very logical assertion. If one deposits for a longer time, the film thickness will be greater. This relationship between how long one continues to deposit and the thickness of film resulting therefrom clearly would be within the skill level of one of ordinary skill in the art of depositing films by CVD. Applicants argue that nothing in Kwon or Chen would indicate use of other pressures. Please see the position set forth at pages 11-12 of the last office action with respect to this argument as well as the remaining reiterated arguments with respect to Kwon and Chen.